Abstract

An optical attenuator and a method of making an optical attenuator is disclosed. The method begins by arranging a first end of a first optical fiber and a second end of a second optical fiber so that they face one another in close proximity. The first and second ends of the optical fibers are then laterally offset from one another and the first end of the first fiber is fused to the second end of the second fiber to create a fusion splice. Next, the attenuation imposed on an optical signal transmitted from the first to the second optical fiber and through the fusion splice is measured to determine an initial deviation in attenuation from a prescribed value. The fusion splice is then re-fused while exerting an axially directed force on the first and second ends of the optical fiber. The measurement step is repeated to determine a subsequent deviation in attenuation from the prescribed value and the re-fusion step is repeated to reduce the subsequent deviation in attenuation. If necessary, this process is repeated until a resulting deviation in attenuation falls within a prescribed tolerance.